

Notice of Allowability

Application No.

09/932,822

Examiner

Tuan V Ho

Applicant(s)

HENDERSON ET AL.

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendments filed on 8/17/01.
2. ☒ The allowed claim(s) is/are 19-57 (renumbered as 1-39 respectively).
3. ☒ The drawings filed on 16 January 2002 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 10/21/02 and 08/17
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☒ Other copies of drawings corrections.

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1. The proposed drawings filed on 08/17/01 have been approved by the examiner.
2. Claims 19-57 are allowed.

The prior art of record fails to suggest or disclose:

With regard to claim 19, a method of operating a solid state image sensor comprising selectively inverting the pixel data signals being input the column circuits; and reversing inversion of the inverted pixel data signals following output from the column circuits.

With regard to claim 27, a method of operating a solid state image sensor comprising an array photosensitive pixels arranged in rows and columns, the method comprising:
selectively inverting the pixel data signals being input to the column circuits; reversing the inversion of the inverted pixel data signals following output from the column circuits.

With regard to claim 35, a solid state image sensor comprising an array of photosensitive pixels arranged in rows and columns; inverting means for selectively inverting the pixel data signals input to said plurality of column circuits; and reversing means for reversing the inversion of the inverted pixel data signals following output from said plurality of column circuits .

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With regard to claim 43, a solid state image sensor comprising an array of photosensitive pixels arranged in rows and columns; at least one input chopping circuit for inverting the pixel data signals input to said plurality column circuits; and at least one output chopping circuit for reversing the inversion of the inverted pixel data signals following output from said plurality of column circuits.

With regard to claim 50, an imaging system comprising: a solid state image sensor comprising at least one input chopping circuit for selectively inverting the pixel data signals input to said plurality of column circuits, and at least one output chopping circuit for reversing the inversion of the inverted pixel data signals following output from said plurality column circuits.

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Yoshimura et al discloses an imaging device that includes a chopper circuit.

Denison discloses an integrator topology that includes a chopper.

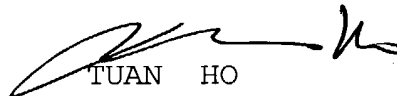
Cluniat et al discloses a video frequency correction device that includes a chopper circuit.

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4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to TUAN HO whose telephone number is (703) 305-4943. The examiner can normally be reached on Mon-Fri from 7AM to 4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Christensen, can be reached on (703) 308-9644. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.



TUAN HO

Primary Examiner

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